INTERNATIONAL SEARCH REPORT

International application No.
PCT/US04/24183

A. CLASSIFICATION OF SUBJECT MATTER
IPC(7) : A61K 38/00
US CL : 514/2; 930/120
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 514/2; 930/120

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
STN, EAST, PubMed

C. DOCUMENTS CONSIDERED TO BE RELE-VANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5942489 A (Schally et al.) 24 August 1999 (24.08.1999), entire document	1-2, 5-28
A	Kovacs M, Schally AV, Lee EJ, Busto R, Armatis P, Groot K, Varga JL Inhibitory effects of antagonistic analogs of GHRH on GH3 pituitary cells overexpressing the human GHRH receptor. J Endocrinol. Nov 2002, 175(2), 425-34, especially page 426.	5-28
A	Schally AV, Comaru-Schally AM, Plonowski A, Nagy A, Halmos G, Rekasi Z. Peptide analogs in the therapy of prostate cancer Prostate. Oct 2000, 45(2), 158-66. Review, especially page 161	8-28
A	Rekasi Z, Varga JL, Schally AV, Halmos G, Groot K, Czompoly T. Antagonistic actions of analogs related to growth hormone-releasing hormone (GHRH) on receptors for GHRH and vasoactive intestinal peptide on rat pituitary and pineal cells in vitro. Proc Natl Acad Sci U S A. Feb 2000, 97(3), 1218-23, especially pages 1220 and 1223.	5-28
A	US 6057422 A (Schelly et al.) 2 May 2000 (02.05.2000), abstract, column 4, lines 19-32; column 9, lines 56-67; column 20, claim 1.	1-2, 5-28

☐ Further documents are listed in the continuation of Box C. **D** See patent family annex.

* Special categories of cited documents

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
24 February 2005 (24.02.2005)	£ Ü DtC 2005
Name and mailing address of the ISA/US Mail Stop PCT, Attn ISA/US Commissioner for Patents P.O Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer Bruce Campell, PhD Telephone No. 571-272-1600

Form PCT/ISA/210 (second sheet) (January 2004)

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. [ ] Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. [ ] Claims Nos.:
because they relate to parts of the intertiational application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. [ ] Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority Found multiple inventions in this international application, as follows:
Please See Continuation Sheet

1. [ ] As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. [ ] As all searchable clajms could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. [X] As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.: Please See Continuation Sheet

4. [ ] No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest
[X] The additional search fees were accompanied by the applicant's protest.
[ ] No protest accompanied the payment of additional search fees.

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BOX III. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claim(s) 1-4, 8-14, and 22-28, drawn to the peptide having the formulae recited in the instant claim 1, and pharmaceutically acceptable salts thereof. Furthermore, the use of the peptide having the formulae recited in the instant claim 1 for the production of a pharmaceutical composition, and a pharmaceutically administrable composition consisting essentially of the peptide having the formulae recited in the instant claim 1.

Group II, claim(s) 5-7, 8-14, and 22-28, drawn to the peptide selected from the group consisting of sequences listed in the instant claims 5-7. Furthermore, the use of the peptide selected from the group consisting of sequences listed in the instant claims 5-7 for the production of a pharmaceutical composition, and a pharmaceutically administrable composition consisting essentially of the peptide selected from the group consisting of sequences listed in the instant claims 5-7.

Group III, claim(s) 15-21, drawn to the second process of using the peptide recited in Groups I and II for administering to a patient.

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In order for more than one species to be examined, the appropriate additional examination fees must be paid. The species are as follows:

R1 group, R2 group, and A0-A30 groups, as recited in claims 1-2. Furthermore, peptides 2-16, 21-22, 30-31, 33-43, 45-60, 62-65, 67-82, and 84-121. For examination, please select a single peptide number or select a specific species for each R and A groups within the scope set forth in claims 1+.

The claims are deemed to correspond to the species listed above in the following manner:

R1 and R2 groups, and A0-A30 groups correspond to claims 1-2. Peptides 2-16, 21-22, 30-31, 33-43, 45-60, 62-65, 67-82, and 84-121 correspond to claims 3-7.

The following claim(s) are generic: 1-28.

The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the special technical feature of the Group I claims is the claimed peptide sequence represented by the formula recited in claim 1 and a pharmaceutically acceptable salts thereof, these special features are not present in Group II as each of the sequences lack a core structure that is shared between them. As for Group III, 37 CFR 1.475 (d) states: If multiple products, processes of manufacture or uses are claimed, the first invention of the category first mentioned in the claims of the application and the first recited invention of each of the other categories related thereto will be considered as the main

invention in the claims, see PCT Article 17(3)(a) and § 1.476(c). Two methods of use are claimed, the method of use of a compound of any claims 1 or 5 for the production of a pharmaceutical composition (claims 8-14), and the method of use by administering to a patient a suppressively effective amount of a compound of any of claims 1 or 5 (claims 15-21). According to 37 CFR 1.475 (d), the first method of use (claims 8-14) will be considered.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

There is no core sequence between the peptides, therefore, no common structure is present.

Continuation of Box III Item 3:
1-2 and 5-28 (all searched in part; for claims 1 and 2 (and their dependent claims), in reference to the first invention (refer to PCT/ISA 206), for claims 5-28, in reference to peptides 30-42, 62-64, 84, and 85)